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A STUDY ON THE EXTENT OF AN ADOPTION ON THE VEGETABLE PRODUCTION TECHNOLOGY OF KVK TRAINED VEGETABLE GROWERS

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ABSTRACT

India is the second largest producer of vegetable next to China in the world accounting for about 12 per cent of world production. Vegetables play a vital role in the maintenance of human health and make the diet nutritive and balanced. The study was conducted in Banapur, Tangi and Chilika blocks of Khordha district, Odisha. Both purposive and random sampling procedure was followed for selection of the district, blocks, gram panchayats, villages and the respondents. The total sample size of the study was 120. The response was obtained from each individual respondent in a structured interview schedule which was pretested with 10 per cent samples other than the respondents of the study. Regarding adoption, the majority (72.5%) vegetable growers were below the medium adoption level. They had more adoption in soil and land preparation with mean score 2.92. All of 13 socio-economic variables were positive and significant relationship with knowledge and adoption level obtained from correlation study. To augment vegetable production in the state, the new proven and viable technology on vegetable production, which should be diffused through various extension activities to accelerate its adoption.

KEYWORDS: KVK–Krishi Vigyan Kendra, TOT -Transfer of Technology & ICAR-Indian Council of Agricultural Research

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Original Article

INTRODUCTION

Odisha produces about 10.30 m. MT of horticultural produce from an area of 1.21 m. ha and accounts for 4.28% of the total horticultural production in the country. Orissa is the second largest producer of brinjal and cabbage accounting for about 20% and 14% respectively of the total production in the country. The state produces 2.20 m. MT of brinjal from an area of 0.13 m ha. with productivity of 16.6 t/ha and about 1.15 m. MT of cabbage from an area of 0.04 m. ha. with productivity of 28 t/ha which is the highest among cabbage producing states. The production and productivity have to be stepped up by the available knowledge, skill, advanced technology and its adoption by the vegetable growers. The need based training may improve the knowledge and skill of growers to increase production and create a source of income and food. The ICAR launched several Frontlinetransfers of technology project in the country. The KrishiVigyan Kendra is one such scheme which was introduced by ICAR in the year 1974. The objective of the KVK is to work on assessment, refinement and transfer of agricultural and allied technologies and transfer of skill through training in agriculture and allied sectors for the farmers/farmwomen of the district.

MATERIALS AND METHODS

The study was conducted in Banapur, Tangi and Chilika blocks of Khordha district. Both purposive and multistage random sampling methods were adopted for selection of the district, block, gram Panchayat, village and respondents. A list of vegetable growing farmers of these selected villages was obtained from the scientists of KVK, from this list structure proportionate stratified random sampling method was followed to select respondents of the study. A total of 120 (hundred twenty) number of respondents was selected for the purpose of the investigation. The response was obtained from each individual respondent in a structured interview schedule which was pretested with 10 per cent samples other than the respondents of the study.

Formulation of Hypotheses

Relationship between socio-economic profile and knowledge level of the respondents of vegetable production technology

H_0: There is no significant relationship between socio – economic profile and knowledge level of the respondents of vegetable production technology.

H_1: There is existence of significant relationship between socio – economic profile and knowledge level of the respondents of vegetable production technology.

RESULTS AND DISCUSSIONS

Table 1: Extent of Adoption Respondents on Vegetable Production Technologies

(N=120)

Extent of Adoption	Fully Known (3)		Partially Known (2)		Not Known (1)		Mean Score	Rank
	f	%	f	%	f	%		
Soil and land preparation	109	90.83	11	9.16	0	0	2.92	I
Varieties	95	79.16	25	20.83	0	0	2.83	II
Planting	81	67.50	36	30	3	2.50	2.73	VI
Intercultural practices	93	77.50	27	22.50	0	0	2.82	III
Nutrient management	86	71.66	34	28.33	0	0	2.75	V
Plant protection measures	93	77.50	27	22.50	0	0	2.80	IV
Harvesting	80	66.66	40	33.33	0	0	2.67	VII

Examining the above table, it was revealed that the respondent farmers had the highest adoption on soil and land preparation with mean score 2.92 followed by varieties (2.83), inter cultural practices (2.82), plant protection measures (2.80) and had poor adoption on nutrient management and planting with mean score 2.75 and 2.67 respectively.

Again, an attempt has been made to categorize the respondents according to their level adoption into categories such as:-low, medium and high.

Table 2: Categorization of Farmers, According to their Adoption Level

(N=120)

Category	Frequency	Percentage (%)
Low	15	12.50
Medium	87	72.50
High	18	15

The above table revealed that majority (72.5%) of the respondents categorized under medium adoption level category, followed by 15 percent low and 12.5 percent belonged to high adoption level categories in vegetable production technologies. The majority of the respondents belonged to the medium adoption level category, owing to the reasons of poor socioeconomic condition and perceived constraints faced by the farmers in vegetable production.

Table 3: Relationship between Socio-Economic Profiles with Adoption Level of Respondents

(N=120)

Sl. No.	Variables	Value of Correlation Coefficient (r)
1	Age	0.096*
2	Education	0.194*
3	Occupation	0.240**
4	Annual family income	0.416**
5	Housing pattern	0.205*
6	Land holding size	0.220*
7	Extent of participation	0.127*
8	Cosmo politeness	0.241**
9	Media exposure	0.498**
10	Farm power	0.405**
11	Risk orientation	0.087*
12	Innovation proneness	0.172*
13	Scientific orientation	0.94*

*Significant at the 0.05 level of probability

**Significant at the 0.01 level of probability

The data in table 4.3.2 indicate the correlation coefficient between Age (X_1), Education (X_2), Occupation (X_3), Annual family income (X_4), Housing pattern (X_5), Land holding size (X_6), Extent of participation (X_7), Cosmo politeness (X_8), Media exposure (X_9), Farm power (X_{10}), Risk orientation (X_{11}), Innovation proneness (X_{12}) and Scientific orientation (X_{13}) with adoption level (Y_2) of vegetable production technologies.

The correlation coefficient "r" between age (X_1) and adoption level was found to be r = 0.096, which was significant at 0.05 level of probability. Thus, it can be concluded that age has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between education (X_2) and adoption level was found to be are = 0.194, which was significant at 0.05 level of probability. Thus, it can be concluded that education has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between occupation (X_3) and adoption level was found to be r = 0.240, which was significant at 0.01 level of probability. Thus, it can be concluded that occupation has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between annual family income (X_4) and adoption level was found to be r = 0.416, which was significant at 0.01 level of probability. Thus, it can be concluded that annual family income has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between housing pattern (X_5) and adoption level was found to be r = 0.205 which was significant at 0.05 level of probability. Thus, it can be concluded that the housing pattern has shown a positive

significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between land holding size (X_6) and adoption level was found to be r = 0.220, which was significant at 0.05 level of probability. Thus, it can be concluded that land holding size has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between extent of participation (X_7) and adoption level was found to be r = 0.127, which was significant at 0.05 level of probability. Thus, it can be concluded that the extent of participation has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between cosmo politeness (X_8) and adoption level was found to be r = 0.241, which was significant at 0.01 level of probability. Thus, it can be concluded that cosmo politeness has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between media exposure (X_9) and adoption level was found to be r = 0.497, which was significant at 0.01 level of probability. Thus, it can be concluded that media exposure has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between farm power (X_{10}) and adoption level was found to be r = 0.405, which was significant at 0.01 level of probability. Thus, it can be concluded that farm power has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between risk orientation(X_{11}) and adoption level was found to be r = 0.087, which was significant at 0.05 level of probability. Thus, it can be concluded that risk orientation has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between innovation proneness (X_{12}) and adoption level was found to be r = 0.172, which was significant at 0.05 level of probability. Thus, it can be concluded that innovation proneness has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

The correlation coefficient "r" between scientific orientation (X_{13}) and adoption level was found to be r = 0.094, which was significant at 0.05 level of probability. Thus, it can be concluded that scientific orientation has shown a positive significant relationship with level of adoption of vegetable production technologies. Hence the null hypothesis was rejected.

SUMMARY AND CONCLUSIONS

Agriculture is the dominant sector of Indian economy. The progress of nationsis, therefore, directly linked with the advancement in agriculture. The scientific research in agriculture is getting momentum. The technical know-how of different crops is being evolved by the agricultural scientists very fast. Under such conditions, it is essential that the farmers be kept abreast of this dynamic agriculture through an equally dynamic system of extension education. The Krishi

Vigyan Kendra is meant to bridge the gap between investing the technology and its actual application in the field by farmers. However, the prime objective of the Krishi Vigyan Kendra is to impart need based, skill oriented and vocational training to the rural people with other various extension activities to help the farmers to bring excellence in their socio-economic development. Krishi Vigyan Kendra Undertakes various transfer of technology programmes like trainings, front line demonstrations, on farm trial and extension activities.

It was revealed that the respondent farmers had the highest adoption on soil and land preparation with mean score 2.93 followed by varieties (2.81), inter cultural practices (2.80), plant protection measures (2.78) and had poor adoption on nutrient management and planting with mean score 2.74 and 2.70 respectively. Again, an attempt has been made to categorize the respondents according to their level adoption into categories such as: -low, medium and high. The above table revealed that majority (68%) of the respondents categorized under medium adoption level category, followed by 23 percent low and 9 percent belonged to high adoption level categories in vegetable production technologies. The majority of the respondents belonged to the medium adoption level category, owing to the reasons of poor socio-economic condition, medium knowledge level and perceived constraints faced by the farmers in vegetable production.

The researcher hopes that this research study will be highly useful in understanding the personal, social, economical, communication, managerial and psychological characteristics of the beneficiaries and the impact of KVK trainings on farmer development. From the present study, it is concluded that there is a positive adoption of KVK trainings. So it implies that KVK should organize such type of need based more training programmes and extension activities to increase the income which will ultimately uplift the socio-economic status of the farming communities in the area. The KVKs have developed some innovative techniques for transfer of technology. There is need to increase more participation of farmers for adoption of technologies in the area.

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